

Date: Wed, 23 Feb 94 04:30:10 PST
From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>
Errors-To: Ham-Digital-Errors@UCSD.Edu
Reply-To: Ham-Digital@UCSD.Edu
Precedence: Bulk
Subject: Ham-Digital Digest V94 #48
To: Ham-Digital

Ham-Digital Digest Wed, 23 Feb 94 Volume 94 : Issue 48

Today's Topics:

aprs400.zip - Hams: Automatic Packet Reporting System (APRS)
 DSP alternatives
 Hamblaster Update
 How to RFD for new group?
 KAM plus vs. PK-900 question
 Nameserver for ampr.org (3 msgs)
 NPFPMMS available via ftp
 Packet at 1.2 GHz (23cm)?
 Sound Blaster stupidity
 telemetry

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>

Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Digital Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-digital".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Mon, 21 Feb 1994 18:23:31 GMT
From: elroy.jpl.nasa.gov!usc!howland.reston.ans.net!usenet.ins.cwru.edu!
nigel.msen.com!simtel.coast.net!msdos-ann-request@ames.arpna
Subject: aprs400.zip - Hams: Automatic Packet Reporting System (APRS)
To: ham-digital@ucsd.edu

I have uploaded to the SimTel Software Repository (available by anonymous
ftp from the primary mirror site OAK.Oakland.Edu and its mirrors):

pub/msdos/hamradio/
aprs400.zip Hams: Automatic Packet Reporting System (APRS)

APRS avoids the complexity and limitations of trying to maintain a

connected packet radio network. It accomplishes the real-time display of operational traffic via UI frame broadcasts and map displays. A station with information to contribute transmits it, and all stations receive it.

APRS automatically tracks mobile packet stations interfaced to GPS or LORAN, and works just as well with manual tracking. Specific applications include weather nets, direction finding, plotting satellite contacts, and so forth.

Where is the Army-Navy game football, the event leader, the fire? What's the weather like at various points in the county? Where are the power lines down? Where is the flood, the hurricane, the earthquake?

Uploaded for the author, Bob Bruninga, WB4APR @ WB3V.MD.USA

Tim Dugan, KA3YYP
TPDugan@dockmaster.ncsc.mil

Date: 21 Feb 94 18:26:17 GMT
From: psinntp!psinntp!laidbak!tellab5!jwa@rutgers.rutgers.edu
Subject: DSP alternatives
To: ham-digital@ucsd.edu

In article <171037.4894.s093bs@simenv.com> dphelps@simenv.com writes:
>I'm just a Ripvanwenkel type, thinking of getting into packet,
>so please excuse novice question, but
>I am trying to figure Packet out just as DSP chips are
>going through rapid evolution. I was looking for good buy in
>audio DSPs and was looking at a SoundTrax for \$289 1-800-260-6771

Be careful with this DSP. I looked into it myself. It has impressive specs, however, (i'm not shure but I believe) it doesn't have very much memory. The SoundTrax board with the SPROC processor is devoted to a limited application, a 24 channel stereo graphics equalizer.

Jack Albert WA9FVP Fellow Radio Hacker
Tele (708) 378-6201
Tellabs Operations, Inc. FAX (708) 378-6721
1000 Remington Blvd. jwa@tellabs.com
Bolingbrook, IL 60440

Date: Mon, 21 Feb 1994 18:30:17 GMT
From: olivea!charnel!psgrain!research-01.mskcc.org!psinntp!psinntp!laidbak!
tellab5!jwa@ames.arpa
Subject: Hamblaster Update
To: ham-digital@ucsd.edu

2-15-94

I hope that this will clear up a few questions about
the Hamblaster.

Disclaimer

This IS NOT an ad. The Hamblaster is not a product
that's being sold to amateurs or any other group.
It's a 3 year effort by myself and Will Torgrim N9PEA.
We have been doing this as a hobby, hopefully, to
improve Amateur radio. Unless we are ready to sell
the Hamblaster as a product or if we can get someone
to back us, I will continue to post our progress.

Finely, we have spent thousands of dollars to develope
the Hamblaster and we haven't earned a single penny
for our efforts. So how can this be an ad for profit?

The Hamblaster is not a software package. It requires a
special sound card that uses a Texas Instruments TMS320C25
DSP to run filters or audio demodulators. It can interface
to a TNC via a TTL digital port and replace the TNC's poor
filtering.

It's not compatible with other sound cards but it can
co-exist with them. I use my Soundblaster Pro and Hamblaster
together. I can, for example, run a filter on the the Hamblaster,
connect it's output the Soundblaster and record a CW signal using
the SB software under the Windows environment.

More "info"

1) External Power supply

I think one feature that separates the Hamblaster
from other sound boards is it's ability to run on
an external 12 volt supply. When a filter or modem

is loaded, you can turn off the computer and it will stay active.

When it's connected to a PK-232, there's no need to leave the computer on in order to keep the DSP alive. Right now, my PK232/Hamblaster is running and it's been operating for about two weeks.

There still some developement work being done and I'm told that the power supply will be on a small PC board and sold as an option for about \$20.00.

2) Adaptive (LMS) filter

There's ongoing developement in this area. We are planing (I don't think this has been done before) to add controls to the LMS algorithm.

Eureka! It works! 2-21-94

I just received a call from Will last night but I wasn't home. :< However, my answer machine got it. He held the phone next to a speaker and I heard SSB with a carrier and some other interferance. He pressed a button on his computer and the hetrodyne was gone.

I don't have any details about the software except that it works. I'll keep you posted.

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Bolingbrook, IL 60440

Date: 22 Feb 1994 12:14:23 -0600
From: elroy.jpl.nasa.gov!usc!howland.reston.ans.net!cs.utexas.edu!swrinde!
menudo.uh.edu!uuneo.NeoSoft.com!sugar.NeoSoft.COM!not-for-mail@ames.arpa
Subject: How to RFD for new group?
To: ham-digital@ucsd.edu

I am wanting to start an RFD and then CFV to establish a rec.radio.amateur.digital.packet for packet radio ONLY.
I have NEVER done an RFD or CFV and would need some guidance.

Can anyone help me ?

sfarlow@sugar.neosoft.com

Date: 21 Feb 94 08:54:07 -0700
From: agate!howland.reston.ans.net!sol.ctr.columbia.edu!hamblin.math.byu.edu!
yvax.byu.edu!phyc1.byu.edu!peterson@ames.arpa
Subject: KAM plus vs. PK-900 question
To: ham-digital@ucsd.edu

I am looking at purchasing a good multi-mode controller. It appears that the two that fit the bill are the Kantronics KAM plus and the AEA PK-900. They both appear to support simultaneous operation on HF plus VHF packet. However, the PK-900 specifically states that it is possible to add 9600 baud packet to the box but the KAM plus does not. Does anyone out there know if the KAM plus can be modified or upgraded to support 9600 baud packet on VHF?

Thanks for your help.

Bryan Peterson, ki7td
peterson@phyc1.byu.edu

Date: 21 Feb 1994 15:07:06 -0800
From: agate!howland.reston.ans.net!cs.utexas.edu!asuvax!pitstop.mcd.mot.com!
mcdphx!schbbs!mothost!mdisea!mmddvan!vanbc.wimsey.com!vanbc.wimsey.com!not-for-
mail@ames.arpa
Subject: Nameserver for ampr.org
To: ham-digital@ucsd.edu

I am trying to set up a solid Internet access using JNOS. My access is through a similar system at a local university.

Trouble is, nobody on Internet can get to me since routing tables do not seem to contain my IP address or my host name.

I have two questions (today's quiz?):

1. Who is the primary/secondary nameserver for ampr.org? (I am talking about the Internet side here, not the RF side). SOME ampr.org hosts seem to be reachable.
2. Who is doing mail (MX) forwarding for ampr.org?

73 de VE7MDL (erik@ve7mdl.ampr.org)Erik.

(IP address: 44.135.160.50)

Date: Tue, 22 Feb 1994 16:37:12 GMT
From: usc!howland.reston.ans.net!cs.utexas.edu!swrinde!ihnp4.ucsd.edu!
library.ucla.edu!news.mic.ucla.edu!unixg.ubc.ca!nntp.cs.ubc.ca!utcsri!
newsflash.concordia.ca!CC.@@elroy.jpl.nasa.gov
Subject: Nameserver for ampr.org
To: ham-digital@ucsd.edu

In article <2kbeqq\$kpu@vanbc.wimsey.com>,
Erik Skovgaard <erik@vanbc.wimsey.com> wrote:
>I am trying to set up a solid Internet access using JNOS. My access is
>through a similar system at a local university.
>
>Trouble is, nobody on Internet can get to me since routing tables do not
>seem to contain my IP address or my host name.
>
>I have two questions (today's quiz?):
>
>1. Who is the primary/secondary nameserver for ampr.org? (I am talking
>about the Internet side here, not the RF side). SOME ampr.org hosts seem
>to be reachable.

Numerous hosts on the ampr.org are not declared in the nameserver database because usually people who assign the 44.xx.xx.xx IP addresses do not register them to ucsd.edu.

And even if there is an entry in the nameserver database, it's not surprising that hosts are unreachable. The Internet and APRNet are two separate networks. Only a few hosts on APRNet are connected to the Internet through gateways.

Here is the header of the nameserver table.

```
@           IN      SOA    ucsd.edu. brian.ucsd.edu.  (
                           94022213      ; Serial
                           3600000   ; Refresh
                           3600      ; Retry
                           36000000 ; Expire
                           864000 ); Minimum

           IN      NS     ucsd.edu.
           IN      NS     trout.nosc.mil.
           IN      NS     hpcos.col.hp.com.
           IN      NS     w1mx.mit.edu.
```

You can download the nameserver tables via anonymous ftp to ucsd.edu
in /hamradio: ampr.org and ampr.org.rev.

>2. Who is doing mail (MX) forwarding for ampr.org?

>

I don't really understand your question. Anyone can define a MX for
a machine on the ampr.org domain.

>73 de VE7MDL (erik@ve7mdl.ampr.org)Erik.

>

>(IP address: 44.135.160.50)

>

Are you sure ? According to the nameserver

44.135.160.50 = ve7abw.ampr.org

44.135.96.92 = ve3.ve7mdl.ampr.org

and ve7mdl.ampr.org is not registered.

73 de Francois / VE2NFC

--

Francois Normant (VE2NFC)	Internet: fn@mathappl.polymtl.ca
Ecole Polytechnique - Mathematiques	Compu\$erve: 75210,525
C.P. 6079 - succursale centre ville	Tel. (514) 340-5968
Montreal - Quebec - Canada - H3C 3A7	Fax. (514) 340-4463

Date: 22 Feb 1994 17:19:19 -0000

From: elroy.jpl.nasa.gov!swrinde!gatech!howland.reston.ans.net!pipex!warwick!

unicorn.nott.ac.uk!unicorn.nott.ac.uk!not-for-mail@ames.arpa

Subject: Nameserver for ampr.org

To: ham-digital@ucsd.edu

In article <2kbeqq\$kpu@vanbc.wimsey.com> erik@vanbc.wimsey.com (Erik Skovgaard)
writes:

>I am trying to set up a solid Internet access using JNOS. My access is
>through a similar system at a local university.

Best of luck ;-)

>Trouble is, nobody on Internet can get to me since routing tables do not
>seem to contain my IP address or my host name.

You'd need to get an IP number on your university network as well - routing
to 44.x.x.x doesn't happen on the net. Trying to telnet to one from here
returns a demented and confused ICMP Network Unreachable..

You could then add an extra address record for your box, i.e.

G9FOO IN A 44.1.2.3

G9FOO IN A 123.231.123.231

to the nameservers, which would enable your box in the ampr.org. domain to be
found as far as IP service was concerned. You then have your radio ports

on the 44.1.2.3 address, but your link to your college network needs to have an address on that network.

>1. Who is the primary/secondary nameserver for ampr.org? (I am talking about the Internet side here, not the RF side). SOME ampr.org hosts seem >to be reachable.

Asking Mister Nslockup:

Authoritative answers can be found from:

AMPR.ORG nameserver = UCSD.EDU

AMPR.ORG nameserver = TROUT.NOSC.MIL

UCSD.EDU internet address = 128.54.16.1

UCSD.EDU internet address = 132.239.1.1

UCSD.EDU internet address = 132.239.254.201

TROUT.NOSC.MIL internet address = 128.49.16.7

>2. Who is doing mail (MX) forwarding for ampr.org?

Your local mail exchanger. Check the zone files and you'll see that there are various MX records in there, i.e.:
g9foo.ampr.org. IN MX 5 somewhere.accessible.nott.ac.uk.

You'll need to arrange mail forwarding independently with your local network management people.

Finally, don't forget the final dot when specifying full domain names to the ucsd update robot! somewhere.org. rather than somewhere.org is essential, anything else will be considered a subdomain of ampr.org.

Probably best to get your entries checked by your local people as well before submitting them to the server as well.

73 Mike

--
--- Mike Knell, University of Nottingham, UK --- M.Knell@unicorn.nott.ac.uk ---
| AMPR: g7gpa@hobbes.g7gpa.ampr.org | AX25: g7gpa@g7gpa.gb7bad.#23.gbr.eu |
| Clear the laundromat! This whirl-o-matic just had a nuclear meltdown! |
--- GAT(!B) d--- -p+ c++++(---) l++ u+ e+ m+/* s-/ n+ h-- f* !g w+ t+ r-- y* --

Date: Mon, 21 Feb 1994 19:53:09 +0000

From: elroy.jpl.nasa.gov!usc!howland.reston.ans.net!pipex!demon!g8dzh.demon.co.uk!
John@ames.arpa
Subject: NPPFMS available via ftp
To: ham-digital@ucsd.edu

A full shareware version of the NPFPMS Multi-user PMS (version 2.16) can now be ftp'ed from

ftp.demon.co.uk /pub/ham/npfpms.exe (336,697 bytes long)

The PMS is written, by Ted Harrison G8NPF, to run as an application under BPQcode (4.05 or greater). The computer should be a 286/386/486 PC compatible. The PMS code will *NOT* work on a XT (8086/8088 cpu) system, sorry!

The PMS requires MSDOS >=3.3 or DRDOS >=5.0, and 640K ram. It will also run as a DOS application under OS/2, WINDOWS and DESQview. A hard disk is essential and a reasonably fast PC is advisable.

The PMS includes virtually all 'BBS' commands, many of which have been modified to suit a PMS, rather than a BBS, system. It features, among other things;

Multi-user access. 'Simultaneous' operation on all channels.

YAPP binary file transfers and Ascii file transfers.

Automatic message forwarding.

FBB compatible bulk ascii & compressed message forwarding.

FBB 'ACK:' type messages.

NNA compatible bulk compressed message forwarding.

Automatic password verification when forwarding to and from a BBS running the latest version of G1NNA's code (NNA v2.03 April 93).

REQDIR, REQFIL, FNDFIL and WP servers.

Automatic date-expired message killing/deleting.

Automatic Listing and Reading of mail on the local NTSBBS.

Full function text editor.

Local terminal mode, with all normal terminal functions.

Multi-colour displays.

User database and WP database.

Support for 7PLUS files.

Support for DESQview

.....plus lots more.

Further information from Ted Harrison NTS G8NPF@GB7ESX.#31.GBR.EU
Internet tedharrison@compulink.co.uk

--
John Ray

Loughton Essex England

John@g8dzh.demon.co.uk

CI\$ 100041,305

G8DZH@GB7HSN.#32.GBR.EU

Date: Mon, 21 Feb 1994 16:19:49 GMT
From: catfish!cscsun!dtiller@uunet.uu.net
Subject: Packet at 1.2 GHz (23cm)?
To: ham-digital@ucsd.edu

Val Kartchner (val@cs.weber.edu) wrote:
: What little I know about the 23cm band is from a recent article (from
: a few months ago) in QST.

: 1 - It takes a Gunnplexer.

: 2 - Since the receiver oscillator is derived from the transmitter,
: it is a full-duplex path (on a frequency pair).

Perhaps you mean 10GHz?? I don't think I've ever seen a Gunnplexer for
1.2 GHz. These days 1.2GHz isn't that esoteric - with the flood of
DBMs, gain blocks (MMICs) around, 1.2 GHz should be fairly easy to design
for.

--
David Tiller | Network Administrator | Voice: (804) 752-3710 |
dtiller@rmc.edu | Randolph-Macon College | Fax: (804) 752-7231 |
"Drunk, [Beowulf] slew | P.O. Box 5005 | ICBM: 37d 42' 43.75" N |
no hearth companions." | Ashland, Va 23005 | 77d 31' 32.19" W |

Date: 22 Feb 94 15:06:42
From: idacrd.ccr-p.ida.org!idacrd!n4hy@uunet.uu.net
Subject: Sound Blaster stupidity
To: ham-digital@ucsd.edu

--
Robert W. McGwier | n4hy@ccr-p.ida.org Interests: ham radio,
Center for Communications Research | scouts, astronomy, golf (o yea, & math!)
Princeton, N.J. 08520 | ASM Troop 5700, ACM Pack 53 Hightstown
(609)-279-6240(v) (609)-924-3061(f) | I used to be a Buffalo . . . NE III-120

Date: Mon, 21 Feb 1994 08:01:10 -0600
From: elroy.jpl.nasa.gov!swrinde!cs.utexas.edu!asuvax!pitstop.mcd.mot.com!mcdphx!
schbbs!mothost!lmpsbbs!NewsWatcher!user@ames.arpa
Subject: telemetry
To: ham-digital@ucsd.edu

In article <RswKG+1.caludwig@delphi.com>, Al Ludwig <caludwig@delphi.com>
wrote:

> I am involved in a project involving PC data collection. I need to
> syncronize two PC's collecting data - one under a brige, and one in the
> car going over a bridge. All I need to do is provide some external time
> base that both PC's can collect along with the other data (actually only
> one need collect it, the opposite PC could generate it for itself and the
> other one) I need to syncronize the two PC's to within about 1 mili-second
> of each other. Any ideas??? Packet comes to mind as one possibility, but
> is it fast enough? How about other kinds of (amateur) digital telemetry?
> Any suggestions would be appericiated
>
> Al Ludwig, N7JTI
> caludwig@delphi.com

Probably the simplest and yet most accurate way is to synch both computer
clocks to the same time code source, either WWVB or GPS. Receivers for both

are easy to build in the well-stocked electronics lab, or can be purchased
commercially from multiple sources.

There is a three-part construction project for a WWVB receiver system
currently running in 73 magazine's Jan, Feb, Mar 94 issues which may be of
interest to you.

--
Karl Beckman, P.E. < STUPIDITY is an elemental force for which >
Motorola Comm - Fixed Data < no earthquake is a match. -- Karl Kraus >

Some of the opinions expressed above aren't even claimed by the author!
Amateur radio WA8NVW @ K8MR.NEOH.USA.NA NavyMARS VBH @ NOGBN.NOASI

End of Ham-Digital Digest V94 #48

